

**Texas Department of Transportation**

**TECHNICAL PROVISIONS**

**STATE HIGHWAY 360**

**Attachment 8-1**

**ESAL Counts**

## TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Fort Worth District

October 24, 2011

|   |                       |      |            |          |                |     |        |                                |                   | Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2020 to 2040) |                 |         |      |     |     |        |    |            |   |            |    |
|---|-----------------------|------|------------|----------|----------------|-----|--------|--------------------------------|-------------------|---|-----------------|---------|------|-----|-----|--------|----|------------|---|------------|----|
| Description of Location                         | Average Daily Traffic |      | Dir Dist % | K Factor | Percent Trucks |     | ATHWLD | Percent Tandem Axles in ATHWLD | Flexible Pavement | S N   | Rigid Pavement  | SLAB    |      |     |     |        |    |            |   |            |    |
|   | 2020                  | 2040 |            |          | ADT            | DHV |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
|   | Base Year             |      |            |          | Base Year      |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| <b>SH 360</b>                                   |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| <b>Section 1</b>                                |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| From Green Oaks Blvd To Holland Road            |                       |      |            |          |                |     |        |                                |                   | 80,000  | 119,800         | 62 - 38 | 10.5 | 6.5 | 4.3 | 15,100 | 40 | 18,352,000 | 3 | 23,627,000 | 8" |
| Tarrant County                                  |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| <b>Data for Use in Air &amp; Noise Analysis</b> |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| <b>Vehicle Class</b>                            |                       |      |            |          |                |     |        |                                |                   | <b>Base Year</b>  |                 |         |      |     |     |        |    |            |   |            |    |
|   |                       |      |            |          |                |     |        |                                |                   | <b>% of ADT</b>   | <b>% of DHV</b> |         |      |     |     |        |    |            |   |            |    |
| Light Duty                                      |                       |      |            |          |                |     |        |                                |                   | 93.5  | 95.7            |         |      |     |     |        |    |            |   |            |    |
| Medium Duty                                     |                       |      |            |          |                |     |        |                                |                   | 3.1   | 2               |         |      |     |     |        |    |            |   |            |    |
| Heavy Duty                                      |                       |      |            |          |                |     |        |                                |                   | 3.4   | 2.3             |         |      |     |     |        |    |            |   |            |    |
|   |                       |      |            |          |                |     |        |                                |                   | Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2020 to 2050) |                 |         |      |     |     |        |    |            |   |            |    |
| Description of Location                         | Average Daily Traffic |      | Dir Dist % | K Factor | Percent Trucks |     | ATHWLD | Percent Tandem Axles in ATHWLD | Flexible Pavement | S N   | Rigid Pavement  | SLAB    |      |     |     |        |    |            |   |            |    |
|   | 2020                  | 2050 |            |          | ADT            | DHV |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
|   | Base Year             |      |            |          | Base Year      |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| <b>SH 360</b>                                   |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| <b>Section 1</b>                                |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |
| From Green Oaks Blvd To Holland Road            |                       |      |            |          |                |     |        |                                |                   | 80,000  | 145,400         | 62 - 38 | 10.5 | 6.5 | 4.3 | 15,300 | 40 | 31,053,000 | 3 | 39,980,000 | 8" |
| Tarrant County                                  |                       |      |            |          |                |     |        |                                |                   |   |                 |         |      |     |     |        |    |            |   |            |    |

## TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Fort Worth District

October 24, 2011

|   |                          |         |                  |             |                                |     |        |   |                      | Total Number of Equivalent 18k<br>Single Axle Load Applications<br>One Direction Expected for a<br>20 Year Period<br>(2020 to 2040) |                   |      |  |
|---|--------------------------|---------|------------------|-------------|--------------------------------|-----|--------|---|----------------------|---|-------------------|------|--|
| Description of Location   | Average Daily<br>Traffic |         | Dir<br>Dist<br>% | K<br>Factor | Base Year<br>Percent<br>Trucks |     | ATHWLD | Percent<br>Tandem<br>Axles in<br>ATHWLD | Flexible<br>Pavement | S<br>N  | Rigid<br>Pavement | SLAB |  |
|   | 2020                     | 2040    |                  |             | ADT                            | DHV |        |   |                      |   |                   |      |  |
|   |                          |         |                  |             |                                |     |        |   |                      |   |                   |      |  |
| <b>Data for Use in Air &amp; Noise Analysis</b>                                     |                          |         |                  |             |                                |     |        |   |                      |   |                   |      |  |
| Vehicle Class   | Base Year                |         |                  |             |                                |     |        |   |                      |   |                   |      |  |
|   | % of ADT                 |         | % of DHV         |             |                                |     |        |   |                      |   |                   |      |  |
| Light Duty  | 94.4                     |         | 96.3             |             |                                |     |        |   |                      |   |                   |      |  |
| Medium Duty   | 2.7                      |         | 1.8              |             |                                |     |        |   |                      |   |                   |      |  |
| Heavy Duty  | 2.9                      |         | 1.9              |             |                                |     |        |   |                      |   |                   |      |  |
|   |                          |         |                  |             |                                |     |        |   |                      | Total Number of Equivalent 18k<br>Single Axle Load Applications<br>One Direction Expected for a<br>30 Year Period<br>(2020 to 2050) |                   |      |  |
| Description of Location   | Average Daily<br>Traffic |         | Dir<br>Dist<br>% | K<br>Factor | Base Year<br>Percent<br>Trucks |     | ATHWLD | Percent<br>Tandem<br>Axles in<br>ATHWLD | Flexible<br>Pavement | S<br>N  | Rigid<br>Pavement | SLAB |  |
|   | 2020                     | 2050    |                  |             | ADT                            | DHV |        |   |                      |   |                   |      |  |
|   |                          |         |                  |             |                                |     |        |   |                      |   |                   |      |  |
| SH 360<br><br>Section 2<br><br>From Holland Road<br>To US 287<br><br>Tarrant County | 44,500                   | 81,100  | 62 - 38          | 10.5        | 5.6                            | 3.7 | 14,200 | 50                                      | 9,958,000            | 3   | 12,809,000        | 8"   |  |
| SH 360<br><br>Section 2<br><br>From Holland Road<br>To US 287<br><br>Tarrant County | 44,500                   | 103,900 | 62 - 38          | 10.5        | 5.6                            | 3.7 | 14,500 | 50                                      | 17,649,000           | 3   | 22,700,000        | 8"   |  |